

# Factors influencing the place of delivery in rural Meghalaya, India: A qualitative study

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## ABSTRACT

**Background:** In Meghalaya, only 51.4% expectant mothers go for any institutional delivery with a wide rural-urban gap causing morbidity and mortality in the mothers and the neonates. **Objectives:** The objective of this study is to find out the factors influencing the choice of the place of delivery in rural women. **Methodology:** The present qualitative cross-sectional study was conducted from October to December 2016 in Bhoirymbong community health center (CHC) and the area catered to by it. This CHC was selected by purposive sampling. Data collection methods included focused group discussions and in-depth interviews. The data were analyzed manually using thematic content analysis. **Results:** Most of the women in the study area opted for home delivery by traditional birth attendants (TBAs), on whose skills the community had strong faith. Financial constraints, fear of out-of-pocket expenditure, ignorance of available schemes, unavailability of transport, bad roads, and distant hospitals were found to be important causes of this choice. Home delivery apparently offered the women privacy and the opportunity to attend to their household chores and older children. Illiteracy, increasing age, and parity were risk factors for home delivery. Perceived need for institutional delivery was low. Staff attitudes and unnecessary referrals had an impact on the choice of place of delivery. **Conclusion:** In the rural areas of this study, home deliveries are the preferred norm. The wide range of factors identified in this study for the preference of TBA and home deliveries could help policy makers and program implementers to adopt socially and culturally appropriate community-based interventions that can contribute to the reduction of maternal, fetal, and neonatal mortality and morbidity and increase service utilization.

**Keywords:** Maternal mortality, Meghalaya, neonatal mortality, place of delivery, qualitative study

## Introduction

Most maternal, fetal and neonatal complications and mortality occur at or shortly after delivery.<sup>[1]</sup> One critical strategy for reducing these is to ensure delivery in a health facility or with the assistance of a skilled birth attendant (SBA).<sup>[2,3]</sup> However, in Meghalaya, only 51.4% expectant mothers go for any institutional delivery with a wide rural-urban gap.<sup>[4]</sup> Institutional delivery can be improved if the reasons of avoidance can be elicited. The present study was aimed to explore the factors influencing the choice of the place

of delivery. The findings of the study should help developing strategies at the local level, for taking appropriate actions for the improvement of delivery services and their utilization.

## Objectives

The objective of this study is to find out the factors influencing the choice of the place of delivery in rural women.

## Methodology

### Study area

The present study was conducted from October to December 2016 at Bhoirymbong community health center (CHC) area

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**Table 1: Profile of the study sample**

Summary of sample size (n=58)	
Study participants	Sample size
FGD of the ANMs	7
FGD of the ASHAs	10
FGD of the pregnant women	11
IDI of married women in reproductive age of the villages	10
IDI of elderly women of the villages	10
IDI of married males of the villages	10
Profile of the FGD participants (n=28)	
Characteristics	Mean/Median
ANMs (n=7)	
Mean years of service	23.5 (range=12-35 years)
Median of total trainings	8
Median of trainings on delivery	1
ASHAs (n=10)	
Mean years of service	10 years (all had joined in 2006)
Median of total trainings	2
Median of trainings on maternal and child health	1
Pregnant women (n=11)	
Mean age (years)	24.5
Mean parity	2.57
Mean hospital deliveries	0.43
Profile of the IDI participants (n=30)	
Characteristics	Mean
Married women in reproductive age (n=10)	
Mean age (years)	28
Literacy rate (%)	50
Elderly women of the villages (n=10)	
Mean age (years)	60.6
Literacy rate (%)	10
Married males of the villages (n=10)	
Mean age (years)	29.5
Literacy rate (%)	70

FGD: Focussed group discussions; IDI: In-depth interview; ANM: Auxillary nurse midwife; ASHA: Accredited Social Health Activist

which caters a population of 31998. This CHC was selected by purposive sampling as it serves a wide rural area with difficult terrain, predominantly tribal population, and a low percentage of institutional delivery in the past years. The CHC is situated in Ri Bhoi district, Meghalaya, India. There are three subcenters and 58 villages under this CHC.

## Study population

In the present study, different groups of participants were selected to provide a clearer picture about delivery practices in the study areas. The study participants were pregnant women, married women in reproductive age (15–49 years), elderly women of 50 years, and above (since more traditional rural definitions of an “elderly” person correlate with this chronological ages),<sup>[5]</sup> currently married males, Accredited Social Health Activists (ASHAs) and auxiliary nurse midwife (ANMs) who are also SBAs.

## Study design and data collection

The present study was a qualitative cross-sectional study. Data collection methods included focused group discussion (FGD) and in-depth interviews (IDI), to explore the reasons that influence rural women to choose home or a health facility for delivery. Data were collected in two phases. Initially, the FGDs were conducted to obtain the perception of pregnant women, ASHAs, and ANMs. The FGDs were then analyzed which helped in identification of themes and gaps in the information. These were explored in greater depth during IDIs conducted during the second phase of data collection. The sample size was determined using the principle of “saturation” i.e., women were asked to participate in interviews until additional interviews did not provide additional evidence about the main themes of interest.<sup>[6]</sup> In addition, 30 IDIs were done with the three groups (10 each) to capture a wider range of information and personal uninfluenced perspectives through triangulation [Table 1].

Data were collected in Khasi (local language) by Khasi researchers (a moderator and a recorder/note-taker) under the supervision of the principal investigator (PI). At the start of each FGD, the moderator introduced everyone present, explained the topic of discussion. The FGDs were recorded using an audio recorder and field-notes were taken to maintain contextual details and nonverbal expressions for data analysis and interpretation. Informed verbal consents to participate in the study and to use recording devices were obtained from all the study participants. Confidentiality of all study participants was assured. A total of three rounds of FGD were conducted; the first round was among ten ASHAs, second round was among eleven pregnant women and the third round was among seven ANMs, to ensure homogeneity in the groups [Table 1]. Each FGD was conducted for 1–1½ hr. The venues for FGDs were easily accessible to the participants, comfortable, private, and away from other disturbances such as noise, etc. The participants were given prior intimation about the time and venue of the FGDs. The pregnant women were selected from different villages, age-group, and gravid-status for better representation. For conducting IDIs, 10 villages which had no representatives in the FGDs were selected. From each of these villages, data were collected from one individual from each group who were willing to participate. The interviews were conducted at their residence for 30–45 min.

## Data analysis and reporting

On the same day after the FGDs and IDIs were over, the handwritten notes were reviewed and matched with the recorded interviews by the researchers. The transcripts were translated from Khasi to English by the two Khasi researchers separately and combined later. The transcripts were read, emergent themes discussed, and transcripts were coded. A priori themes were coded based on the study objectives and emergent themes were identified based on the narratives of the respondents. The data were analyzed manually by the PI using thematic content analysis.<sup>[7]</sup> For reporting the study, the consolidated criteria for reporting qualitative research checklist have been followed.<sup>[8]</sup>

## Results

### Theme 1: Preferred place of delivery

According to the ANMs who participated in the study, around 70%–80% of the deliveries in the study areas take place at home and not in any health facility in spite of the government providing Janani Suraksha Yojana (JSY), Janani Shishu Suraksha Karyakram (JSSK), or Meghalaya Maternity Benefit Scheme (MMBS).

One ANM even confided, *“Many ASHAs are still delivering at home.”* (ANM # 4, FGD)

It is a matter of concern as ASHAs act as role model in a community and this act of theirs might send a negative message to the community. The home deliveries are done mostly by traditional birth attendant (TBAs), some of whom had received a one-time training about 15 years ago. None of the TBAs presently have disposable delivery kits though they had received them for a few years after their training. The remaining home deliveries were conducted by the elderly women of the family or the village and in one case even by the husband of the pregnant women himself.

### Theme 2: Reasons for selection of place of delivery

**Fear of out-of-pocket (OOP) expenditure:** Fear of OOP expenditure, financial constraints, and lack of proper knowledge of available government schemes were some of the reasons why women avoid institutional delivery. One of the ANMs said that when she tries to convince women for institutional delivery, they say that institutional delivery involves more expenditure than at home.

*“The family members will need money for traveling and food. Also, they will get the scheme money later”* (ANM # 2, FGD).

*“If the ambulance is not available they get a coupon worth Rs. 500 for transport instead. But driver will charge Rs. 1200–1500 for one way”* (ASHA # 6, FGD).

*“We have heard about some schemes but we don’t know in what way they will benefit us and how to obtain the benefit”* (IDI, married male, Pynthor Sobma).

**Accessibility to health facility:** Poor road condition, distance to the nearest health facility having delivery service, unavailability of transport at the time of need often contributed to home delivery.

*“Our place is far from the hospital, vehicles are scarce and roads are bad. By the time we get vehicle, delivery occurs at home or sometimes on the way”* (IDI, married woman in reproductive age, Umtngam).

**Privacy, comfort, or convenience:** Mothers who have had hassle-free home delivery earlier opt for the same again as they can take care of other children as well as the household chores.

*“At home they have freedom. Whether they want to lie and give birth or stand and give birth it’s their choice. There is no one to scold”* (IDI, elderly woman, Nongtariang).

*“We feel so uncomfortable in hospital: no privacy. no place to take bath and we cannot carry many clothes so we can’t change as we like”* (IDI, married woman in reproductive age, Mynsain).

**Literacy level of the community:** The literacy level of the community does matter and the percentage of home deliveries varies from village to village. An ANM says, *“At Umroi, or other advanced villages like Iapngar, people understand. But, in areas like Arka, Mawthai, Pynthor etc., people are mostly not so educated and more difficult to convince so they deliver at home”* (ANM #5, FGD).

**Age and parity:** *“Some women, especially who are either young prefers institutional delivery or it’s easier to convince them”* (ASHA #2, FGD).

*“Those who have had many children already avoid deliveries at hospital”* (ASHA #8, FGD).

**Lack of birth-preparedness:** Another factor that influenced the choice of place of delivery was lack of birth-preparedness.

*“They do not plan where to deliver. It leads to birth during travel. When labour pain is very severe at that time they ask me to take them to hospital”* (ASHA #7, FGD).

**Perceived need:** The villagers prefer institutional delivery only when there are complications. *“If the delivery is peaceful, we don’t go for hospital delivery”* (IDI, married woman in reproductive age, Arka).

The ANMs confided that the most common cause of maternal deaths in the study areas is postpartum hemorrhage, which becomes hard to manage in home deliveries and when the mother is brought to the health facility late.

### Theme 3: Awareness of obstetric complications and perspectives toward institutional delivery

Most of the mothers who preferred institutional delivery did so because they believed that medical care would be better there. They felt safe there as complications can be handled.

*“It is easier in the hospital, we will get help immediately, injections and intravenous fluids with medications”* (pregnant woman #2, FGD).

*“In hospital, they help us to deliver easily by giving medicines and if we cannot deliver on our own, they will deliver by operation. But at home we have to wait and only trust in God”* (pregnant woman #5, FGD).

Some women who prefer home delivery confided that they feel institutional deliveries involve taking unnecessary medications and undergoing needless procedures which could result in complications or deaths. They often are not aware of warning signs or risk factors of complication.

*"Recently one mother from Manthei village died. She had delivered three at home earlier and this was the fourth one. She had bleeding for 2–3 days. We forced her to be taken to hospital but she stayed at home. By the time she was taken to hospital, she died"* (ANM #3, FGD).

*"There are several cases of retained placenta. When they come it's often late"* (ANM #6, FGD).

*"The procedures that they do are not proper and hygienic. Many TBAs use bamboo to cut the umbilical cord: sometimes fresh bamboo, sometimes old bamboo. Or, they use new blade or boil the old blade"* (ANM #3, FGD).

#### Theme 4: Shortcomings of health services

**Lack of infrastructure:** Our study revealed that there was no facility for delivery in any of the three subcentres (SCs) and the CHC did not have facilities for blood transfusion. In addition, there was shortage of basic furniture and equipment such as USG machine.

*"All of us have received SBA training for conducting deliveries but we never got chance to deliver in the SCs due to lack of facility for conducting delivery"* (ANM #1, FGD).

*"There's no proper facility in the hospital, sometimes two patients in one bed"* (IDI, married woman in reproductive age, Umait).

**Shortage of staff:** There is shortage of staff including ANMs in SC, gynecologist and anesthetist in the CHC among others.

*"Earlier we used to go frequently for conducting home deliveries. Now workload has increased too much"* (ANM #5, FGD).

**Service related:** *"If an elderly of the village conducts a delivery we can call her anytime in case of any problem but that is not possible in hospital delivery or if a nurse delivers"* (Pregnant women #1, FGD).

*"If women of our village go for hospital delivery, no one comes to look after them regularly"* (IDI, elderly woman, Liarbang).

**Attitude and behavior of health personnel:** Some women complained that the hospital-staff do not communicate well. *"Sometimes hospital-staff scold us; not all staff but some are very rude"* (IDI, married woman in reproductive age, Umket).

**Improper management and unnecessary referrals:** One health-worker stated, *"Even our Anganwadi worker was sent back from hospital telling it wasn't time yet but soon she delivered at home. There are many such instances. If such incident occurs, the news spreads and people feel scared to go to hospital"* (ASHA # 5, FGD).

*"On reaching the CHC there was only an AYUSH doctor who didn't see my wife and told me that there was no water. She delivered on the way back home. We did not go back to the CHC for others too."* (IDI, Married male, Umden)

Sometimes mothers are referred to the city when it can be managed at CHC too. *"Recently I took my wife to the CHC. They said that it was twins and referred her. Then she delivered normally and not twins!"* (IDI, Married male, Liarbang).

#### Theme 5: Reasons for seeking assistance of traditional birth attendants

**Tradition:** *"I think it's more of tradition than anything. Money is just an excuse because most of the dais take payment between Rs. 1000 and 2000. Payment is must, if not immediately then late payment are accepted"* (ASHA # 6, FGD).

*"Most of the deliveries in the village are being carried out for years by elderly women and there has been little problem both with the mother or the baby. But in hospital, they tell new things like not to bathe the baby or give it sugar water and that it will harm the babies"* (IDI with an elderly woman, Manhati).

**Trust, religious beliefs, and superstitions:** *"In spite of all our counselling, they listen to the TBAs"* (ANM # 4, FGD).

*"Once I saw a case of puerperal sepsis and persuaded her to go to the hospital but dai told her that it was evil eye. She didn't go to hospital. Later, she died"* (ASHA # 9, FGD).

## Discussion

The current study aimed at finding the reasons behind their choice of place of delivery for which FGDs and IDIs were carried out with various stakeholders in the study areas, i.e., pregnant women, married women in reproductive age, married males, and elderly women of the village, ASHAs, and ANMs. It was found that though some women delivered at health-facilities, most of them opted for home delivery by TBAs. In fact, many ASHAs who are supposed to act as the role model for the villagers themselves prefer home delivery. In DLHS 4, it was seen that the majority of women in Meghalaya opted for home delivery (52%) more than institutional delivery, especially in rural area where home delivery was as high as 61%. SBA assisted in only 22% of the home deliveries.<sup>[9]</sup> Financial limitation is one of the important constraints why villagers do not opt for institutional delivery. Although there are schemes such as JSY, JSSK or MMBS to help them, they get the money later and the money received is often less than spent considering the travel, food and lodging expenses of attendants. In a multicountry analysis of secondary data done by Montagu *et al.* they found that the richest women in developing countries were much more likely than the poorest to report giving birth in a health facility. They had also observed that about 8–9 out of every 10 poor women in Sub-Saharan Africa, South Asia, and Southeast Asia reported home delivery.<sup>[10]</sup> The financial constraint was found to be the culprit for home deliveries in other studies too.<sup>[11–14]</sup> Similar to this study, other studies also found that cost of time and OOP expenditures like travel costs, direct payments, and fear of unofficial payments can be barriers to the use of health facilities.<sup>[15]</sup> A study conducted by Gopalan and Durairaj highlighted how the JSY program is



not able to cover all costs associated with delivery.<sup>[16]</sup> Another contributing factor for home delivery was reported to be lack of transport combined with poor roads and distance to the nearest health facility performing delivery. In most rural areas, public transport is the only means available and services can be scheduled at long gaps or sometimes irregular. In many other studies, difficult accessibility was the most reported reason for not delivering in a health facility.<sup>[13,17]</sup> Gabrysch *et al.* in their study found that as distance to the closest health facility doubled the odds of facility delivery decreased by 29%.<sup>[18]</sup>

It was seen that most rural women were more comfortable or found it convenient to deliver at home. To them home delivery offered them adequate privacy, additionally they could take care of the older children and the household chores. Similarly, among rural Laotians, pregnant women dislike the lack of privacy and confidentiality at the health facility.<sup>[17]</sup> Gebrehiwot *et al.* found that domestic tasks such as caring for the rest of the children were a cause for preference of home delivery.<sup>[19]</sup> In the current study, fears and concerns about the position in which they are compelled to give birth at a hospital were highlighted. At home, they could deliver in whichever position they are comfortable in. Similar feelings were noted in a study by Sychareun *et al.*<sup>[20]</sup>

Furthermore, it was revealed that illiteracy is an important contributing factor to home delivery which is in alignment with several similar studies.<sup>[11-13]</sup> It was noted by ASHAs and ANMs of this study that mothers avoided delivering in health facility with increasing parity. Similar findings were observed in a study done in Kenya by Kitui *et al.*<sup>[21]</sup> We observed that the rural women who preferred home deliveries denied the necessity of institutional deliveries unless complications arise. Similar finding was observed in other studies too.<sup>[21,22]</sup> As in some other studies, another contributing factor for the popularity of home delivery was the fear of the apparently unnecessary surgical procedures and medications.<sup>[13,17]</sup> Our study revealed that there was shortage of staff including ANMs in SC and specialist doctors in the CHC among others. Studies have indicated that the adequacy of human resources is essential since a shortage of staff combined with insufficient skill often resulted in delayed if not denial of care.<sup>[23]</sup>

Misbehavior and unfriendly attitudes of some of the health personnel hinder rural women from using health facility for future deliveries. Mistreatment and abuse by health workers find a common mention even in other studies across the globe.<sup>[15,18]</sup> We came across cases of unnecessary referrals and improper management which led to loss of trust of the pregnant women and her family. Issues such as improper referral of complicated cases by lower level facilities was a matter of concern in a study done in Vietnam too.<sup>[23]</sup> It was elicited in the current study that the community had strong faith in the skills of TBAs. Easy availability and accessibility to the TBAs unlike the ANMs or any health facility was one of the major reasons facilitating home delivery. The prevailing traditional views, religious beliefs, and superstitions, trust on TBAs were found to be reasons of

TBA-assisted home deliveries, which is supported by various studies.<sup>[12-14]</sup>

## Conclusion

In our study setting, home deliveries are the preferred norm. The wide range of factors identified in this study for the preference of TBA and home deliveries could help policymakers and program implementers to adopt socially and culturally appropriate community-based interventions that can contribute to the reduction of maternal, fetal, and neonatal mortality and morbidity and increase service utilization. Community mobilization can only be possible if religious leaders and head of the families are convinced about the importance of institutional deliveries. Birth-preparedness can reduce the unplanned home deliveries. Developing quality of care, including behavior and skills of health personnel, and basic infrastructure is of utmost importance.

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## Conflicts of interest

There are no conflicts of interest.

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